WHAT IS CLAIMED IS:

1. An operational amplifying circuit comprising:

an operational amplifier with an output terminal;

a first transistor having a control terminal and electrically connected to the operational amplifier, said first transistor being configured to turn on and off according to an output signal outputted from the operational amplifier through the output terminal thereof;

a second transistor having a control terminal and electrically connected to the operational amplifier, said second transistor being connected to the first transistor in series, said second transistor being configured to turn off and on reversely with the on and off operation of the first transistor according to the output signal from the operational amplifier; and

a current control unit electrically connected to the first and second transistors and configured to detect a current flowing in one of the first and second transistors, said current control circuit being configured to cause a current to flow into the control terminal of the one of the first and second transistors and to make other of the first and second transistors turn off.

2. The operational amplifying circuit according to claim 1, wherein said current control unit comprises a first current control circuit electrically connected to the first and second transistors and configured to detect the current flowing in the first transistor, said first current control circuit being configured to cause the current to flow into the control terminal of the second transistor and to make the second transistor turn off.

3. The operational amplifying circuit according to claim 1, wherein said current control unit comprises a second current control circuit electrically connected to the first and second transistors and configured to detect the current flowing in the second transistor, said second current control circuit being configured to draw the current from the control terminal of the first transistor into the second current control circuit and to make the first transistor turn off.

4. The operational amplifying circuit according to claim 1, further comprising a first canceling unit electrically connected to the output terminal of the operational amplifier and the control terminal of the first transistor, said first canceling unit being configured to cancel a voltage between the control terminal of the first transistor and a connection point of the first and second transistors.

5. The operational amplifying circuit according to claim 1, further comprising a second canceling unit electrically connected to the output terminal of the operational amplifier and the control terminal of the second transistor, said second canceling unit being configured to cancel a voltage between the control terminal of the second transistor and a connection point of the first and second transistors.

6. The operational amplifying circuit according to claim 2, wherein said first current control circuit comprises:

a third transistor having a control terminal commonly connected to

the control terminal of the first transistor, said third transistor being configured to detect the current flowing in the control terminal of the first transistor;

a fourth transistor connected to the third transistor in series; and

a fifth transistor connected to the fourth transistor in a current mirror configuration, said fifth transistor being configured to cause the current to flow into the second transistor.

7. The operational amplifying circuit according to claim 6, wherein said first, second, third, fourth and fifth transistors are bipolar transistors, respectively, and each of said control terminals of each of the first, second and third transistors is a base thereof.

8. The operational amplifying circuit according to claim 6, wherein said first, second, third, fourth and fifth transistors are metal oxide semiconductor transistors, respectively, and each of said control terminals of each of the first, second and third transistors is a gate thereof.

9. The operational amplifying circuit according to claim 3, wherein said second current control circuit comprises:

a sixth transistor having a control terminal commonly connected to the control terminal of the second transistor, said sixth transistor being configured to detect the current flowing in the control terminal of the second transistor;

a seventh transistor connected to the sixth transistor in series; and

an eighth transistor connected to the seventh transistor in a current

mirror configuration, said eighth transistor drawing the current from the control terminal of the first transistor into the second control circuit.

10. The operational amplifying circuit according to claim 8, wherein said first, second, sixth, seventh and eighth transistors are bipolar transistors, respectively, and each of said control terminals of each of the first, second and sixth transistors is a base thereof.

11. The operational amplifying circuit according to claim 8, wherein said first, second, sixth, seventh and eighth transistors are metal oxide semiconductor transistors, respectively, and each of said control terminals of each of the first, second and sixth transistors is a gate thereof.

12. A push-pull circuit comprising:

a first transistor having a control terminal and configured to turn on and off according to an input signal inputted thereto;

a second transistor having a control terminal and electrically connected to the first transistor in series, said second transistor being configured to turn off and on reversely with the on and off operation of the first transistor according to the input signal; and

a current control unit electrically connected to the first and second transistors and configured to detect a current flowing in one of the first and second transistors, said current control circuit being configured to cause a current to flow into the control terminal of the one of the first and second transistors and to make other of the first and second transistors turn off.

13. The push-pull circuit according to claim 12, wherein said current control unit comprises a first current control circuit electrically connected to the first and second transistors and configured to detect the current flowing in the first transistor, said first current control circuit being configured to cause the current to flow into the control terminal of the second transistor and to make the second transistor turn off.

14. The push-pull circuit according to claim 12, wherein said current control unit comprises a second current control circuit electrically connected to the first and second transistors and configured to detect the current flowing in the second transistor, said second current control circuit being configured to draw the current from the control terminal of the first transistor into the second current control circuit and to make the first transistor turn off.